



A.D. 1857 N^c 299.

S P E C I F I C A T I O N

OF

JOHN MIDDLETON.

CONSUMING SMOKE.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

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1857.



A.D. 1857 N° 299.

Consuming Smoke.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by John Middleton at the Office of the Commissioners of Patents, with his Petition, on the 2nd February 1857.

I, JOHN MIDDLETON, of Calais, in the Empire of France, Lace Manufacturer,
5 do hereby declare the nature of the said Invention for “**IMPROVEMENTS IN CONSUMING THE SMOKE OF FURNACES**,” to be as follows:—

My improvements in consuming the smoke of furnaces consist in intercepting the smoke and gases evolved in the furnace, which pass away through the flues unconsumed, and again conveying such smoke and gases back to the
10 ash-pit of the furnace, and by suitable means causing them to pass through the fire, whereby the smoke is consumed. If any combustible portion of the smoke or gases remain unconsumed, such unconsumed portions are continued to be passed through again and again until the whole is consumed. A suitable amount of air is admitted to the furnace to maintain combustion. A commu-
15 nication is effected with the chimney at such time and in such position that no smoke escapes. The chimney need not necessarily have any considerable draught.

To effect this object, I place a rotary fan in the flue from the furnace. This fan is driven by any suitable power, and the exhaust passage placed in commu-
20 nication with the flue from furnace, from which it draws the smoke, and at the

Middleton's Improvements in Consuming the Smoke of Furnaces.

same time forces it by the delivery through a suitable channel into the ash-pit, where it is distributed under the bars, and by the pressure exerted by the fan is forced through the fire. In this way the smoke is caused to circulate till it is consumed.

Any other suitable apparatus may be substituted for the fan to produce 5 the circulation desired.

LONDON :

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Printers to the Queen's most Excellent Majesty. 1857.